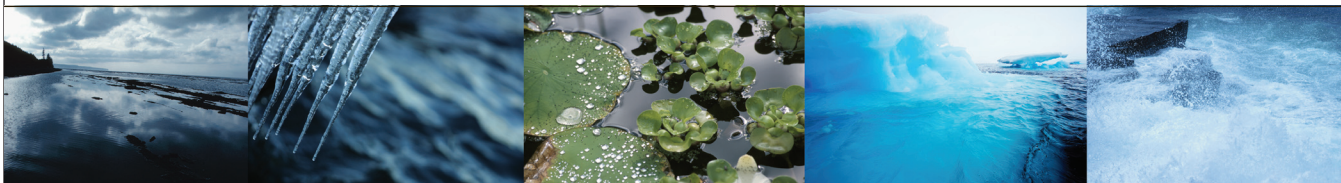


FY 2007 Best Practices



National Water Program



Introduction

Achieving continuous improvement in programmatic activities and environmental outcomes requires a process of planning, implementation, measurement, and analysis. This section highlights a number of best practices that have resulted in success in drinking water, surface water quality, coastal and wetlands programs. A best practice is defined as a process or methodology that consistently produces superior or innovative results. To propagate their impact widely and encourage their adoption, it is important to identify and analyze these approaches.

The twelve best practices highlighted in this section were selected from proposals submitted by the Office of Water headquarters offices and water divisions in EPA's regional offices. The proposals were assessed according to the following criteria:

- **Success within the program:** How has the activity resulted in improvements? Are the activity results clear, and does it have a direct or catalytic impact on program success?
- **Innovation:** How does the activity differ from existing approaches?
- **Replicability:** Can the activity be adopted by other Regions/ Offices/ States? Does it have the potential for expansion?
- **Direct relation to the Administrator's priorities**

The selected best practices do not represent a comprehensive list of the innovative activities that are being implemented. Rather the selection is intended to provide examples of different types of activities taking place in different regions addressing different sub-objectives. In selecting these best practices, special emphasis was placed on identifying activities or approaches that have resulted in measurable successful outcomes. These best practices are in addition to a number of activities identified in the FY2006 End of Year Report.

The vision for this Best Practices Report is to promote the wide spread use of these successful activities and scale up the benefits of their implementation by sharing information on them among the program and Regional offices. Further activities will be identified and analyzed on a biannual basis. Furthermore, activities that have been selected will continue to be monitored to study their long-term effectiveness. This is part of a continuous learning process that is anticipated to yield even more innovation and successful outcomes.

1 Onsite Wastewater Assistance Program

Sub-objective: Improve Water Quality on a Watershed Basis

Highlights

- **What:** A fund to provide financial assistance for private homeowners in rural Iowa to update or replace their existing onsite septic systems.
- **Who:** Iowa Department of Natural Resources and Iowa Finance Authority
- **Why:** Thousands of homes in rural Iowa still lack secondary treatment after septic tanks. This program provides an affordable way to upgrade septic systems to meet current codes and limit pollutants from entering Iowa's waters.

Brief Description

The Onsite Wastewater Assistance Program (OSWAP) provides 10-year low-interest loans for eligible borrowers to repair or replace outdated septic systems. When existing septic systems are discovered to be substandard, counties have this financial assistance tool to offer to homeowners to remedy the situation. Through the county environmental health offices, homeowners can procure a permit for a septic system that meets state requirements, acquire loan and lender information, as well as final inspections and approvals for the system and the loans. The SRF loan program for septic system replacement is fairly unique as a component of non-point source pollution loan programs. Through state legislation and a partnership with U.S. EPA, Iowa has been able to provide loan funds to a previously under-served area of water pollution control. This program uses the best practice of partnering by developing a relationship between the Department, the Iowa Finance Authority, participating lenders, county environmental health offices, and the onsite wastewater community in Iowa. All of these groups share the responsibility of promoting the loan program and providing their unique service or strength.

Current Status

The number and amount of loans made has steadily increased since the program began in 2002. Assistance totaling over \$4 million has been provided to rural homeowners to replace approximately 700 inadequate septic systems. This amounts to nearly 44 million gallons of wastewater annually that is now properly treated before being released to the environment. Ninety-two of Iowa's ninety-nine counties are approved to participate in the program. The approval process has been improved because a new financial partnership with the Iowa Finance Authority. This process is now becoming web-based. The marketing of the program has changed from a top down oriented program from the Department to a primarily local effort by counties and lenders with the assistance of the Department.

Outcomes

Iowa has used SRF funding to address onsite wastewater systems (septic systems) because they are a permanent as part of the permanent infrastructure. The program in Iowa continues to grow and improvements are made as a result or in anticipation of future growth. The program has garnered considerable national attention with presentations at the EPA Regional Forum and State Onsite Regulators Conference. The Iowa Department of Natural Resources has been proactive in assisting other states with efforts to implement similar programs in other areas of the United States.

Lessons Learned/Recommendations

Ensuring that local or state regulations will allow the use of SRF funds for individual loans to homeowners seems to be the biggest hurdle for most states when trying to implement an onsite loan program. States can utilize EPA, State Onsite Regulators Alliance, or other national onsite groups to research these programs and find the one that provides the best fit for their locale. Each state has a slightly different regulatory or legal structure so overcoming these obstacles has been the biggest challenge. If local legal hurdles can be overcome, this program, or some version of it, could be duplicated in many states.

Contact Information

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2 Clean Water State Revolving Fund and Farm Credit Banks Partnership

Sub-objective: Improve Water Quality on a Watershed Basis

Highlights

- **What:** The Clean Water State Revolving Fund (CWSRF) programs in Virginia and Maryland established agreements with several Farm Credit Banks to provide loans to farmers to implement agricultural best management practices (BMPs).
- **Who:** EPA Region 3, Virginia and Maryland CWSRF programs and Farm Credit Banks
- **Why:** Implementing non-point source (NPS) projects has faced a number of financing difficulties.

Brief Description

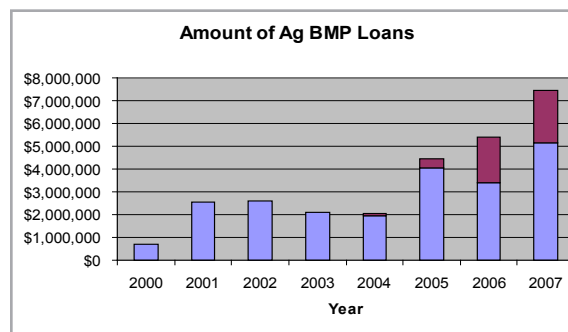
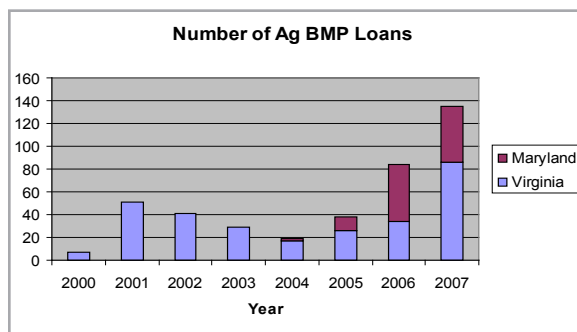
Region 3's CWSRF program continually encourages and supports its state partners in developing innovative ways to finance non-point source projects. One such approach is building partnerships with Farm Credit Banks, which were established to help meet the specialized needs of farmers and to ease the difficulties that State CWSRF programs encounter when financing NPS projects. A CWSRF loan provides the working capital to finance the entire cost of the project with reimbursements during construction usually within three days. After the project is built, most farmers receive the USDA grant reimbursement and use it to pay down the loan. Repayment periods for the remaining loan balance, which represents the farmer's cost share, may be as long as twenty years but are typically seven to ten years. To be eligible for financing under this mechanism, projects must be in accordance with farmers' individual nutrient management plans. Using this approach, the Virginia Department of Environmental Quality made its first Ag BMP loan in 2000. Region 3 helped to disseminate information on Virginia's successful program to other states in the Region 3 area. As a result, the Maryland Department of the Environment established its own program and made its first Ag BMP loan in 2004.

Current Status

Both the Virginia and Maryland Programs continue to fund NPS projects.

Outcomes

As of June 30, 2007, Virginia's CWSRF made 291 loans for agricultural BMPs, totaling \$22.5 million. Maryland's CWSRF made 113 loans totaling almost \$5 million. Both state programs are working efficiently and expect continued success. Prior to the partnerships with these banks, Maryland and Virginia CWSRF programs had been unable to finance any agricultural BMPs.



Lessons Learned/Recommendations

Building partnerships with intermediaries eases the difficulties that State CWSRF programs encounter when financing non-point source projects. Through these partnerships, the CWSRF programs gained excellent marketing partners for its loans, and obtained experienced financial analysts to review the farmers' loan applications.

Contact Information

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3 California Dairy Quality Assurance Program Compliance Assistance Tool

Sub-objective: Improve Water Quality on a Watershed Basis

Highlights

- **What:** A voluntary program to improve compliance with State water quality regulations through education and encouraging science-based dairying practices to promote the health of the consumer, the environment, and dairy livestock.
- **Who:** The California Dairy Quality Assurance Program (CDQAP) is an environmental stewardship partnership consisting of 17 groups, agencies, organizations, and academia established through a Memorandum of Understanding.
- **Why:** The dairy industry is one of California's biggest industries. Approximately 30 million tons of manure per year is generated in over 2000 dairies in the Central Valley of California. This has significant impacts to water (surface and ground water), air quality, and public health.

Brief Description

The CDQAP holds quarterly meetings to improve communications between regulatory agency staff, academia, and industry representatives. Technical and financial resources from the dairy industry, federal and state sources (e.g., California Department of Food and Agriculture and USDA Natural Resources Conservation Service), and academia (University of California Davis) are leveraged to improve producer understanding of environmental regulatory obligations. The program includes classroom teaching, workshops, technical assistance, and independent third party evaluations for certification.

Current Status

The CDQAP newsletter is distributed to 3,000 subscribers, 2,200 of whom are dairy producers. The program collaborators continue to develop new curricula, outreach materials, and teaching tools.

Outcomes

The CDQAP has made progress in improving the environmental performance of dairy producers and preventing surface water discharges from dairy operations through its environmental stewardship curriculum and certification program. Over 1,350 producers have completed the six-hour environmental stewardship course. Over 250 facilities have been certified. Improvements in the Central Valley have taken place as a result of the reduction in surface water discharges due to the CDQAP efforts.

CDQAP has been instrumental to dairy producers' ability to comply with new water quality regulations imposed by the Central Valley Regional Water Quality Control Board. In September 2005, CDQAP and the Central Valley Water Board held 23 workshops to assist dairy producers in completing reports of waste discharge (ROWDs). Some 585 producers attended these classes and submitted the ROWDs by the deadline (98% return rate). The Central Valley Water Board adopted its general order (permit) for dairies in May 2007 and looked to CDQAP to assist producers in its phased implementation over five years. CDQAP held 21 workshops in the fall of 2007 to assist the 1,700 producers who attended in gathering data and developing a preliminary dairy facility assessment (as required by the permit) by the December 31, 2007 deadline. There was a 96% compliance rate among producers in meeting this deadline. CDQAP continues to work with dairy producers on future compliance dates related to the general order.

Lessons Learned/Recommendations

It took the leadership of the dairy industry, academia (University of California, Davis), and state agencies (notably, the California Department of Food & Agriculture) to create and foster this program. Financial and technical assistance came through were acquired through leveraging and collaborative efforts. Over time, trust and respect cemented this partnership. Every state has representative counterparts to CDQAP's partners. It takes leadership, initiative, innovation, and commitment to create or replicate such an effort elsewhere.

Contact Information

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4

Perdue Clean Bays Initiative

Sub-objective: Improve Water Quality on a Watershed Basis; Improve the Health the Chesapeake Bay Ecosystem; Improve Coastal and Ocean Waters

Highlights

- **What:** The Perdue Clean Bays Initiative (PCBI) is a voluntary program developed to help poultry growers comply with environmental requirements that will help support reducing environmental impacts to waters of the Chesapeake Bay and Coastal Bays.
- **Who:** The PCBI was jointly developed by Perdue Farms, Inc. and EPA Region 3 with a significant level of involvement by the Office of Enforcement and Compliance Assistance (OECA).
- **Why:** The PCBI was developed to pilot an innovative compliance approach utilizing Perdue Farms' resources to increase environmental awareness while at the same time complete on-farm assessments that would determine nutrient management compliance.

Brief Description

Region 3 and Perdue Farms, Inc. have signed a Memorandum of Agreement to work together to develop and implement the Perdue Clean Bays Environmental Management Initiative. The purpose of this program is to provide training, assistance, and environmental assessments as it relates they relate to poultry operations to protect the waters of Delmarva, including the Chesapeake Bay and Coastal Bays and to enhance producers' compliance, as it relates to poultry operations, with federal, state, and local environmental regulations. The PCBI includes seven elements: Training Assistance, Producer Environmental Assessments, Deviation Response Plan, Environmental Results, Program Evaluation, Recognition, and EPA Compliance Assurance Activities.

Current Status

One of the major recommendations that will be included in the final PCBI report will be to launch a 3-year corporate stewardship program that spans states that are in both Region 3 and Region 4 and will include over 1,600 poultry farms to receive on-farm environmental assessments. This expanded environmental compliance/outreach initiative will include training for Perdue personnel and poultry producers, as well as the possibility of performing energy reviews on these farms to reduce energy use and save resources. Interest in replicating this initiative has also been expressed by two other Eastern Shore Integrators (Allen Farms and Mountaire Farms).

Outcomes

To date the PCBI has resulted in joint Perdue/EPA training sessions for over 60 flock supervisors, environmental managers and 18 growers that are participating in the 1st phase of the PCBI. Additionally, over 50 environmental on-farm assessments have been completed resulting in a number of environmental improvements. As a result of these activities, there has been an increase in awareness among poultry producers on certain management measures that improve environmental protection, including keeping better records as nutrient management plans are implemented. The experience of this initiative has been well documented, and the materials developed (Training Handbook, CD Rom, Environmental Assessment Check List, Content of the Perdue-EPA CB Agreement) may be used by other Regions to help improve environmental compliance awareness among poultry producers.

Lessons Learned/Recommendations

The corporate stewardship partnership between Perdue Farms and EPA has been successful based on the spirit of cooperation between both partners to jointly develop training materials, conduct several training workshops for both Perdue personnel and poultry growers, having EPA visit several farms to observe how the on-farm environmental assessment process is conducted, the completion of over 50 data sets that represent three assessments on each farm over a period of 9 months, and the detailed level of involvement of EPA with Perdue officials as the Initiative goes "Corporate-wide."

Contact Information

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5 National Pollutant Discharge Elimination System Permit Tracking System

Sub-objective: Improve Water Quality on a Watershed Basis

Highlights

- **What:** A Microsoft Office Access® based National Pollutant Discharge Elimination System (NPDES) Permit Tracking System was developed to target permit reviews to key permits.
- **Who:** EPA Region 3
- **Why:** The NPDES Permits Team identified common recurring issues that were leading to objections in State permits. In a time of increasing permit review workload but decreasing resources, the team needed to target permit reviews, particularly along lines that were not tracked by existing systems.

Brief Description

The Permit Tracking System (PTS) is a Microsoft Office Access®-based program that offers a number of useful resources and functions: permit action history; priority permit criteria; draft permit review status; priority watershed info; 303(d) and TMDL info; concentrated animal feeding operations (CAFO) details; flags to particular areas of concern in Region 3, such as combined sewer overflows (CSOs) and Chesapeake Bay permits; links to regulations and other NPDES guidance documents; and more. PTS allows users to identify and track draft permits for targeted review. PTS generates reports used to provide information for multiple purposes, including HQs requests, Chesapeake Bay Program Office nutrient control tracking, internal data requests, and program activity measures reporting.

Current Status

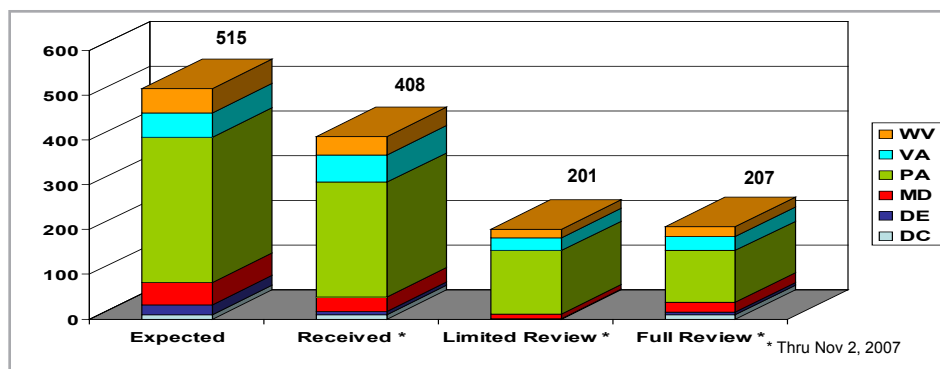
PTS is available to all of Region 3 Water Protection Division.

Outcomes

PTS has helped reduce by half the number of permits that received a full review in 2007 (see chart below). This has helped the NPDES Permits Team to focus reviews on areas of concern (implementation of TMDLs in permits, Chesapeake Bay nutrient requirements, CSO language, etc.). It has also helped mitigate impacts of staff changes by providing a record of permit history and a library of significant documents. It is particularly useful in compiling information for HQ's reporting and requests from the Enforcement Branch and other programs.

Lessons Learned/Recommendations

With the decrease of resources for state oversight, PTS has proven to be a valuable targeting and reporting tool. Integrated NPDES/303(d)/ TMDL systems and an NPDES library would be useful on a national level.



Draft Permit Workload in 2007 (Information taken from PTS)

Contact Information

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6 Minimizing the Effects of Harmful Algal Bloom Events through Early Detection

Sub-objective: Improve the Health of the Gulf of Mexico

Highlights

- **What:** The Harmful Algal Blooms Observing System (HABSOS) provides a near real-time application to provide readily accessible information on harmful algal bloom events (HABs) to Gulf of Mexico resource managers.
- **Who:** EPA Gulf of Mexico Program, ORD/NHEERL, NOAA/NOS, NOAA/NCDDC, NOAA/NDBC, NRL-SSC, NASA/ESAD, COFEPRIS
- **Why:** The socio-economic impacts from HABs are large and diverse at the local level, and significant at the aggregated, national, and international levels. Importantly, many HAB events are recurrent, and HABs show signs of expanding in geographic scope and severity as the nation's use of coastal areas for commerce and recreation expands.

Brief Description

The HABSOS integrates weather data, observations of harmful algal species, and model predictions of sea surface characteristics to help forecast where HABs may occur. The HABSOS program is expanding harmful algal bloom detection, tracking, and forecasting capabilities not only to U.S. states but also bi-nationally to Mexico. Data management and dissemination is supported through the HABSOS web-based system which produces daily updates and twice weekly nowcasts/forecasts of the location and intensity of blooms.



Current Status

Currently, early detection systems are operational in South Florida and South Texas. By early 2008, in situ monitoring sensors and telemetry will be deployed to three locations in the pilot state of Veracruz, Mexico, and training to provide the consistency of reporting will be conducted with Mexican personnel. The objective is to include the full expansion across Mexican Gulf States to support a bi-national partnership to provide timely access to data and information for detecting, tracking, and forecasting HAB events and effects across the Gulf of Mexico.

Outcomes

Early warnings and timely forecasts have improved the ability of U.S. state agencies to protect public health, warn fishermen and coastal resource harvesters, and disseminate relevant and accurate information to the public to reduce adverse economic impacts from harmful algal blooms resulting from lost sales of fish and shellfish products and lost marine recreational opportunities. Coastal managers are now better equipped for early warning of HAB events, and the HABSOS detection system provides better coordination and consistent methods of reporting from different locales.

Lessons Learned/Recommendations

- Online Data Entry Tool necessary for quicker upload and access to data.
- Need to be able to upload many records at one time into Data Entry Tool rather than one record at a time (bulk load).

Contact Information

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7 Finding and Closing Motor Vehicle Waste Disposal Wells

Sub-objective: Water Safe to Drink

Highlights

- **What:** Process used to find and close motor vehicle waste disposal wells
- **Who:** Region 5
- **Why:** An efficient process was needed to ensure that the estimated thousands of these wells in the Region could be found and closed, as required by regulation to protect underground sources of drinking water.

Brief Description

Early inventory efforts showed that there are thousands of unreported motor vehicle waste disposal wells in the Region 5 area that could discharge contaminants into shallow ground water aquifers. An inspection process was developed where senior environmental employee program field inspectors used commercially available databases to identify facilities that were most likely to have these disposal wells. The field inspectors received training and standard operating procedures and were provided with simplified outreach materials developed primarily for uninformed small business owners. The inspectors conducted inspections, as well as one-on-one compliance assistance. Inspection report results are designed to flow seamlessly into the office tracking and review process which allows environmental staff to continue efforts to ensure compliance. The inspection and closure progress is tracked in linked workflow and inventory databases. Facilities that were unable or unwilling to close their disposal wells immediately following the inspection were assigned to environmental office staff who that provided additional compliance assistance, as needed, in an increasingly more enforcement-oriented process to ensure cooperation and eventual closure with minimal effort.

Previous inventory gathering practices were found to be resource and time intensive and yielded mixed results. This new practice was innovative in two ways: it provided efficient field procedures to identify disposal wells in unsewered? areas, combined with on the spot outreach and compliance assistance. The new practice was effective because it resulted in significant numbers of well closures. To ensure effective implementation, the Region educated state and local health and environmental agencies about the rule.

Current Status

Closure of wells identified during the inventory continues.

Outcomes

About one third of the counties in the Region's three direct implementation states and Indian country have been surveyed, resulting in almost 1400 identified motor vehicle waste disposal wells. Approximately 75% of these disposal wells have now been closed by the Underground Injection Control Branch, most in the last two years of implementing the new best practice. In Fiscal Year 2007 alone, 558 wells were closed, representing two-thirds of the wells closed in direct implementation programs throughout the country. Previous efforts were very resource intensive and resulted in only a small fraction of these results.

Lessons Learned/Recommendations

- Initial brainstorming, planning and workflow design from field and office perspectives was essential to a cohesive best practice.
- Monthly calls and yearly meetings with all field and office staff involved in the effort ensure consistency of procedures and improvements in the process.
- Proper database management ensures that progress can be effectively tracked.
- Cooperation with state environmental agencies is essential to ensuring that a unified message is presented to the regulated entities.

Contact Information

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8 National Estuary Program On-Line Reporting Tool

Improve Coastal and Ocean Waters

Highlights

- **What:** The National Estuary Program On-Line Reporting Tool (NEPORT) is an internet and Lotus Notes®-based database that enables the 28 National Estuary Programs (NEPs) to easily report their habitat and leveraging data to EPA as required in the Strategic Plan.
- **Who:** EPA Office of Wetlands, Oceans and Watersheds, Coastal Management Branch developed and manage the database with contractor support (RTP).
- **Why:** NEPORT was developed to track two NEP performance measures – (i) number of acres of habitat protected or restored, and (ii) number of dollars leveraged. Data is stored in a secure, central database that can be accessed both by the NEPs who enter the data and by EPA who reviews the data.

Brief Description

NEPORT is user friendly – it is easy for the NEPs to enter data, EPA to review the data, and both NEPs and EPA to download summary data. It is also a repository of historic data allowing EPA to assess trends and to manage the NEP more effectively. The database is secure on the web allowing only submitters and reviewers have data access. In addition, information can be readily analyzed – data can be sorted, reports downloaded, and pie charts generated. EPA Headquarters and Regional Offices work with the NEPs to enter and review the data and conduct QA/QC.



The screenshot shows the 'NEP Online Reporting Tool - Leveraging\Combined Totals by Role, Region, Y...' web application. The interface includes a sidebar with navigation links like 'Contacts', 'Addresses View', 'Habitat', and 'Leveraging'. The main content area displays a table with the following data:

Project Name	Federal	State	Local
Westport Chapin White Conservation Restriction	\$990,000	\$20,000	\$2,025,000
Casco Bay Estuary	\$570,971	\$313,897	\$128,653
BayScaping Program	\$0	\$0	\$0
Brickyard Farm	\$0	\$0	\$0
East End Community School Green Roof	\$0	\$0	\$15,587
Environmental Education	\$0	\$0	\$4,182
Freeport Air Monitoring Station	\$0	\$21,568	\$0
Habitat Restoration Committee	\$0	\$0	\$0
Operating Support	\$89,000	\$150,108	\$7,384
Presumpscot River Fish Assemblage Survey	\$0	\$3,045	\$0
Presumpscot River Watershed Initiative	\$369,971	\$0	\$36,730
PSP Intensified Sampling Project	\$12,000	\$0	\$0
Septic System Installer Training Workshops	\$0	\$0	\$0
Stormwater Subdivision Plan Review	\$0	\$0	\$55,220
Payments	\$0	\$0	\$0

Current Status

The database is currently in use.

Outcomes

EPA's understanding of the performance of the NEPs has improved since NEPORT was implemented allowing EPA to target technical and other assistance more effectively. NEPORT will continue to provide EPA with valuable information that will provide for better management of the NEP. Other EPA programs could develop similar lotus notes databases to track their programs' performance and to target assistance.

Lessons Learned/Recommendations

NEPORT greatly assists in managing the data and making it available to manipulate electronically by both EPA and NEP users. However, it is not inexpensive to develop and some enhancements can be costly. While incorporating an additional QA/QC step, as well as approval, by the Regions is beneficial, the process is lengthy.

Contact Information

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9 Drinking Water Plant Operators Performance Based Training Program

Sub-objective: Water Safe to Drink

Highlights

- **What:** A training program for plant operators that bridges the gap between classroom-based training and hands-on application at their water system.
- **Who:** The Office of Ground Water and Drinking Water's (OGWDW) Technical Support Center, in cooperation with EPA Regional Offices and States.
- **Why:** This training program provides an innovative approach to water treatment plant operator capacity building to help water systems meet successively more stringent regulations and achieve higher levels of water quality.

Brief Description

Through its four EPA regional Area-Wide Optimization Programs (AWOPs), the OGWDW's Technical Support Center works with state drinking water programs and water system operators to help water systems meet successively more stringent regulations and achieve higher levels of water quality. Specifically, the goal of the AWOP is to reduce turbidity in filtered drinking water and enhance problem solving skills needed for current and future regulations. An intensive performance-based training (PBT) is an integral component of the AWOP. The PBT bridges the "knowing" and "doing" gap by implementing a more hands-on approach to learning. PBT typically consists of five sessions and works with 6-8 plants at the same time. During these sessions the water system representatives study their own plants for homework assignments. Operators learn new skills needed to address typical limiting factors to optimization at their own plants and become willing to implement changes that will achieve the desired level of performance, i.e. sustained optimized performance. After each PBT session, operators apply the classroom concepts that are relevant to the needs of their own plants and report back on progress at each training session to the other participants. Progress in process improvement of the drinking water plants is thus monitored throughout the course of the year. Plant operators are also provided access to facilitators (state regulators) for homework assistance between sessions. Facilitators can assist the plant staff address tough issues such as spreadsheet graphing or jar testing guidance, but, facilitators do not solve their problems for them.

Current Status

A total of 21 states are implementing AWOPs through multi-state activities with EPA's Regions 3, 4, 6 and 10 with support from OGWDW. Each of these states began their AWOP at different times and are is therefore, at different stages of development. Currently of the 17 states receiving training on PBT from OGWDW, 13 use PBT as part of their AWOP. Several of these states are utilizing SRF set-aside funding for its AWOP. Some regions have also used PBT with its tribal water systems.

Outcomes

It is estimated that operators from approximately 150 treatment plants have gone through PBT in the 13 active states. During PBT each plant tracks its performance each day, and approximately 70% of the plants that complete all PBT sessions have shown improved performance. In a statistical analysis of a groups of plants that have gone through PBT, a 27% improvement in finished water turbidity levels was found as compared to randomly selected plants that had not gone through PBT.

Lessons Learned/Recommendations

PBT when used as part of an AWOP provides primacy agencies a tool to improve water quality at several plants, concurrently, while maximizing the use of state resources. The experience of implementing this program in Regions 3, 4, 6 and 10 has allowed states to enhance the relationship with their water systems and demonstrated the importance of collaboration between the water industry and all stakeholders. The program is replicable in other regions, given the availability of financial and staff resources.

Contact Information

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10 Creating Utility Organizations to Support Drinking Water Compliance In Tribal Areas

Sub-objective: Water Safe to Drink

Highlights

- **What:** Creating utility organizations that have strong support from tribal governments or exist outside tribal governments leads to increased public awareness, willingness to pay, and increased compliance at tribal public water systems.
- **Who:** Unwavering technical assistance and enforcement pressure from Region 8, coupled with a positive change in the Eastern Shoshone tribal politics, made the creation of a new utility organization possible
- **Why:** The Fort Washakie Water System was constantly in a state of crisis and out of compliance due to the lack of technical know-how and unresponsive utility management

Brief Description

Region 8 has found Tribal governments experience frequent turnover that typically results in turnover in utility employees. Some tribes have created strong utility organizations that are sanctioned by the tribal government but are exempt from turnover associated with new tribal governments. As a result, the utility and the operators develop a better relationship with the primacy agency (Region 8), a better understanding of drinking water regulations and compliance with those regulations, and have the opportunity to reach out to the community and explain the benefits of safe drinking water. These positive results often improve the utility organization's standing with the tribal government, leading to increased ongoing support for the organization. The Shoshone Utility in Fort Washakie on the Wind River Reservation in Wyoming is a good example of a successful utility organization.

Current Status

The tribe hired an able Utility Director who is answerable to the Tribal Business Council, which in turn is answerable to the General Council. The Council gave the Director free reign to implement the policies of the utility organization. The utility organization has also allowed the operators to pursue state certification and grow in their profession, be reasonably compensated and own their responsibilities. Starting from uncertified operators, the utility now has one, Level IV and two, Level II operators, certified by the State of Wyoming. Their salaries are competitive with non-tribal operators in the area. The organization is now serving as a leader, providing peer support to other drinking water utilities on the reservation.

Outcomes

The utility maintains good communication with Region 8 and the water system is in excellent compliance status with SDWA. The collection rate also went up to 96.5%; even customers who have been delinquent for a long time came out and paid their fees. This certainly is a vote of confidence on the utility organization for providing reliable water service.

Lessons Learned/Recommendations

The Shoshone Utility experience has proved to be very effective. Some lessons learned include:

- Communication with and building the support of tribal governments is key to the success and sustainability of a utility organization.
- A utility organization subject to political oversight is central to providing and delivering safe drinking water.
- Providing reliable services and responding to customer complaints build trust among utility customers.
- A cadre of certified professionals, who take pride in their work, is necessary for a strong utility organization that inspires confidence in the public.

Contact Information

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